

What is claimed is:

1. An electrostatic chucking device having a laminated structure which is formed by sequentially laminating a first insulation layer, an electrode layer and a second insulation layer on a metal substrate, wherein the first insulation layer and the second insulation layer are constituted of polyimide films, and at least the adhesion between the metal substrate and the first insulation layer is performed by using a thermoplastic polyimide-based adhesive film having a film thickness of 5 to 50  $\mu\text{m}$ .

2. An electrostatic chucking device according to claim 1, wherein the adhesion between the metal substrate and the first insulation layer, the adhesion between the first insulation layer and the electrode layer and the adhesion between the electrode layer and the second insulation layer are respectively performed by using thermoplastic polyimide-based adhesive films having a film thickness of 5 to 50  $\mu\text{m}$ .

3. An electrostatic chucking device according to claim 1, wherein the metal substrate is made of an aluminum alloy metal substrate.

4. An electrostatic chucking device according to claim 2, wherein the metal substrate is made of an aluminum alloy metal substrate.

5. An electrostatic chucking device according to claim 1, wherein the polyimide films which constitute the first insulation layer and the second insulation layer have a film thickness of 20 to 50  $\mu\text{m}$ .

6. An electrostatic chucking device according to claim 2, wherein the polyimide films which constitute the first insulation layer and the second insulation layer have a film thickness of 20 to 50  $\mu\text{m}$ .

7. An electrostatic chucking device manufacturing method including

a step in which a thermoplastic polyimide-based adhesive film having a film thickness of 5 to 50  $\mu\text{m}$ , a polyimide film which constitutes a first insulation layer, a thermoplastic polyimide-based adhesive film having a film thickness of 5 to 50  $\mu\text{m}$ , a metal foil which constitutes an electrode layer, a thermoplastic polyimide-based adhesive film having a film thickness of 5 to 50  $\mu\text{m}$  and a polyimide film which constitutes a second insulation layer are sequentially superposed on a metal substrate, and

a step in which a low-temperature compression bonding processing is performed at a heating temperature of 100 to

250°C under pressure so as to form a laminated structure which is constituted by sequentially laminating the first insulation layer, the electrode layer and the second insulation layer on the metal substrate.

8. An electrostatic chucking device manufacturing method including

a step in which an electrode layer is formed on one-side surface of a first insulation layer or a second insulation layer by means of vapor deposition means or plating means,

a step in which a thermoplastic polyimide-based adhesive film having a film thickness of 5 to 50  $\mu\text{m}$ , a polyimide film which constitutes the first insulation layer, and a polyimide film which constitutes the second insulation layer are sequentially superposed on a metal substrate while putting a thermoplastic polyimide-based adhesive film having a film thickness of 5 to 50  $\mu\text{m}$  between the polyimide film which constitutes the first insulation layer or the second insulation layer and the electrode layer, and

a step in which a low-temperature compression bonding processing is performed at a heating temperature of 100 to 250°C under pressure so as to form a laminated structure which is constituted by sequentially laminating the first

insulation layer, the electrode layer and the second insulation layer on the metal substrate.

9. An electrostatic chucking device manufacturing method including

a step in which a polyimide film which constitutes a first insulation layer, a thermoplastic polyimide-based adhesive film having a film thickness of 5 to 50  $\mu\text{m}$ , a metal foil which constitutes an electrode layer, a thermoplastic polyimide-based adhesive film having a film thickness of 5 to 50  $\mu\text{m}$  and a polyimide film which constitutes a second insulation layer are sequentially superposed,

a step in which a low-temperature compression bonding processing is performed at a heating temperature of 100 to 250°C under pressure so as to form an electrostatic chucking sheet which is constituted by sequentially laminating the first insulation layer, the electrode layer and the second insulation layer,

a step in which the electrostatic chucking sheet is superposed on a metal substrate by way of a thermoplastic polyimide-based adhesive film having a film thickness of 5 to 50  $\mu\text{m}$ , and

a step in which a low-temperature compression bonding processing is performed at a heating temperature of 100 to

250°C under pressure so as to form a laminated structure which is constituted by sequentially laminating the first insulation layer, the electrode layer and the second insulation layer on the metal substrate.

10. An electrostatic chucking device according to claim 1, wherein the thermoplastic polyimide-based adhesive film is a siloxane modified thermoplastic polyimide-based adhesive film.

11. An electrostatic chucking device according to claim 2, wherein the thermoplastic polyimide-based adhesive film is a siloxane modified thermoplastic polyimide-based adhesive film.

12. An electrostatic chucking device manufacturing method according to claim 7, wherein at least one of the thermoplastic polyimide-based adhesive films is a siloxane modified thermoplastic polyimide-based adhesive film.

13. An electrostatic chucking device manufacturing method according to claim 7, wherein each of the thermoplastic polyimide-based adhesive films is a siloxane modified thermoplastic polyimide-based adhesive film.

14. An electrostatic chucking device manufacturing method according to claim 8, wherein at least one thermoplastic polyimide-based adhesive film is a siloxane modified thermoplastic polyimide-based adhesive film.

15. An electrostatic chucking device manufacturing method according to claim 8, wherein both thermoplastic polyimide-based adhesive films are siloxane modified thermoplastic polyimide-based adhesive films.

16. An electrostatic chucking device manufacturing method according to claim 7, wherein the thermoplastic polyimide-based adhesive films have a film thickness of 20  $\mu\text{m}$  to 50  $\mu\text{m}$ .

17. An electrostatic chucking device manufacturing method according to claim 8, wherein the thermoplastic polyimide-based adhesive films have a film thickness of 20  $\mu\text{m}$  to 50  $\mu\text{m}$ .